

CLAIMS

1. Fluid distribution flow adjustment device comprising a first body having a fluid inlet passage, a second body having a fluid outlet passage, the fluid inlet passage opening up at one end facing a turnable disk having holes, the disk and outlet passage being arranged so that there is always at least 5 one of the holes facing the outlet passage, regardless of the position of the disk, to enable fluid distribution without any risk of interruption even during adjustment of the flow in response to turning of the disk, the disk and the outlet passage being arranged so gradual adjustment of the flow is adapted to occur in response to gradual turning of the disk as a function of at least 10 one of (1) the diameter of at least one of the holes and (2) the density of the holes facing the outlet passage.

2. Fluid distribution flow adjustment device according to claim 1, wherein the disk comprises a single continuous cut out around an angular 15 sector with a circular axis of symmetry, the width of the cut out varying gradually with the angle of the radius of intersection of the cut out.

3. Fluid distribution flow adjustment device according to claim 1, wherein the disk includes at least two concentric rows of holes with precise 20 dimensions, the holes in each row being offset from the holes in the other row and at a regular angular spacing, the diameter of the holes encountered in sequence in a given rotation direction varying gradually for each successive hole of two different adjacent rows, the spacing between successive holes in two adjacent rows being less than the diameters of the 25 fluid inlet passage and outlet passage, the fluid outlet or inlet passage facing several holes in the disk to enable gradual flow adjustment without any risk of interrupting the fluid flow.

4. Fluid distribution flow adjustment device according to claim 1,
further including a drive for turning the disk, the drive including a knob
adapted to turn in at least one of the bodies and fixed in rotation with the disk
5 so that the knob can be turned to adjust the flow, the knob including a
passage for enabling fluid circulation as far as the precision holes or cut out
in the fluid flow adjustment disk.

5. Fluid distribution flow adjustment device according to claim 1,
10 wherein a lower part of the second body includes the fluid outlet passage, the
outlet passage having a diameter greater than the spacing between at least
two adjacent precision holes in the same row in the disk to assure that the
outlet passage is always facing at least two precision holes in the flow
adjustment disk.

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6. Fluid distribution flow adjustment device according to claim 1,
wherein the installation is made leak tight by O-rings arranged in grooves
around the periphery of the cylindrical surface of the knob, and on the
internal peripheral surface of a skirt of the knob and the lower part and upper
20 part of the body containing the inlet tube and the outlet tube respectively, and
by an O-ring placed between the disk and the outlet tube in a larger diameter
drilling than the fluid outlet tube.

7. Fluid distribution flow adjustment device according to claim 1,
25 further including a seal between the disk and the inlet and outlet passage, the
seal including first and second O-rings, the first O-ring being in contact with a
first face of the disk and seated in a wall of the first passage, the second O-
ring being in contact with a second face of the disk and seated in a wall of the
ring being in contact with a second face of the disk and seated in a wall of the
second passage between the disk and the outlet passage, the second O-ring
30 being located between the disk and the inlet passage, both in drillings with a

diameter larger than their corresponding tubes and facing the hole(s) or the cut out and each other.

8. Fluid distribution flow adjustment device according to claim 1
5 wherein the knob is knurled on its external periphery and is arranged on at least one face of one of the bodies so that it can be turned manually.

9. Fluid distribution flow adjustment device according to claim 1
wherein the first and second bodies are formed of moulded plastic and at
10 least partially enclose the knob and the disk.

10. Fluid distribution flow adjustment device according to claim 1
wherein the diameter of the disk is smaller than the diameter of the knob.